## (19) World Intellectual Property **Organization**

International Bureau



# 

### (43) International Publication Date 23 June 2005 (23.06.2005)

### (10) International Publication Number WO 2005/055715 A3

(51) International Patent Classification7: A01N 43/08, 43/40, 43/50, 43/54, 43/58, 43/60, 43/824, C07D 213/02, 277/02, 307/02

(21) International Application Number:

PCT/US2004/040284

(22) International Filing Date: 2 December 2004 (02.12.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/526,760

4 December 2003 (04.12.2003) US 14 September 2004 (14.09.2004) US

60/609,590

(71) Applicant (for all designated States except US): FMC CORPORATION [US/US]; 1735 Market Street, Philadelphia, PA 19103 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): ROUSH, David, M. [US/US]; 14 Hamilton Avenue, Princeton, NJ 08542 (US). CHIARELLO, John, F. [US/US]; 2020 Farmview Drive, Newtown, PA 18940 (US). YU, Jianming [CN/US]; 65 Penn Lyle Road, West windsor, NJ 08550 (US). DUGAN, Benjamin, J. [US/US]; 437 Concord Road, Glen Mills, PA 19342 (US). THEODORIDIS, George [US/US]; 45 Monroe Lane, Princeton, NJ 08540 (US). PATEL, Manorama, M. [US/US]; 6 Perry Drive, West Windsor, NJ 08550 (US). YEAGER, Walter, H. [US/US]; 274 Hickory Road, Yardley, PA 19067 (US). SZCZEPANSKI, Steven, W. [US/US]; 400 Wayne Avenue Apt. 6, Oakland, CA 94606 (US).

- (74) Agents: SHEEHAN, John, M. et al.; FMC Corporation, 1735 Market Street, Philadelphia, PA 19103 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

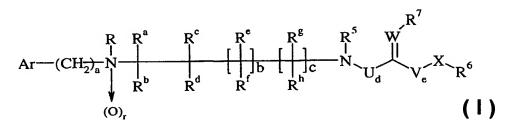
#### Published:

with international search report

(88) Date of publication of the international search report: 20 October 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: INSECTICIDAL N-(HETEROARYLALKYL) ALKANEDIAMINE DERIVATIVES



(57) Abstract: Certain noel N-(heteroarylalkyl)alkanediamine derivatives have provided unexpected insecticidal and acaricidal activity. These compounds are represented by formula I: wherein Ar, a, r, R, Ra, Rb, Rc, Rd, b, c, Rc, Rf, Rg, Rh, Rs, d, e, U, V, X, WR6 and R7 are fully described herein. In addition, compositions comprising an insecticidally effective amount of at least one compound of formula I, and optionally, an effective amount of at least one of a second compound, with at least one insecticidally compatible carrier are also disclosed; along with methods of controlling insects comprising applying said compositions to a locus where insects are present or are expected to be present.